## ABSTRACT

A method for making a thin-film electrode, either an anode or a cathode, by preparing a precursor solution using an alkoxide reactant, depositing multiple thin film layers with each layer approximately 500-1000 Å in thickness, and heating the layers to above 600°C to achieve a material with electrochemical properties suitable for use in a thin film battery. The preparation of the anode precursor solution uses $Sn(OCH_2C(CH_3)_3)_2$ dissolved in a solvent in the presence of $HO_2CCH_3$ and the cathode precursor solution is formed by dissolving a mixture of $(Li(OCH_2C(CH_3)_3))_8$ and $Co(O_2CCH_3)\cdot H_20$ in at least one polar solvent.